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FEMORAL ANEURISM TREATED BY IMMEDIATE COMPRESSION.

[Read before the Boston Society for Medical Improvement, and communicated for the Boston Medical and Surgical Journal.]

By BUCKMINSTER BROWN, M.D.

MR. E. S., a healthy, muscular man, about 38 years of age, called upon me July 11, 1863. Ten days previously he had first noticed a throbbing in the right groin. This had been gradually increasing. I found a pulsating tumor, about three and a half inches in diameter. The swelling was soft, and the fluid apparently just beneath the skin. Pressing with the finger, the posterior walls could be felt, the end of the finger being surrounded by pulsating fluid. The diagnosis was, aneurism of the femoral artery at its exit from the pelvis. Remembering, however, that experienced surgeons had sometimes been deceived by a suppurating gland in the vicinity of a large artery, I decided not to alarm the patient until I had made a second examination. I advised tincture of iodine painted upon the swelling. Upon a second examination, a few days afterwards, I found the swelling had increased and the throbbing much augmented. The finger pressed upon the tumor was forcibly lifted with every pulsation of the heart. Dr. Warren examined the patient July 31, and coincided in the diagnosis, and a trial of the treatment by immediate pressure was decided upon. The patient was directed to stand and walk as little as possible. About this time his health began to fail, and I advised him to go into the country for a short time, and while there that he should gradually accustom himself to the use of weights upon the tumor. He was directed to lie upon his back, and apply a bag of shot weighing ten pounds. Three times a day the weight was to be removed for an hour, and a bag of ice applied. This treatment was continued two weeks, when the weight was increased to fifteen pounds. At the expiration of another two weeks the patient returned to Boston. During these four weeks Mr. S. had obeyed implicitly my directions. The weight had been kept on the tumor day and night. It had caused a good deal of pain, and he had consequently obtained but little sleep. I found, on his return, there was a change

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for the better. Less throbbing and the tumor somewhat diminished in size. Three times a day he had walked from the bed to the lounge, and this was all the exertion he had made. He was now directed to lie persistently upon his back, and to make no voluntary effort whatever. He was carefully lifted upon the lounge in the morning, and at night carried to his bed. Ice was used for an hour in the night as well as in the day; as a change from the weight, this was a great relief. This course was pursued for some weeks, when, at the suggestion of Dr. Warren, I commenced using cannon balls, in order to concentrate the weight more accurately over the tumor. The first ball used weighed twelve pounds. In a short time this was doubled, using a ball weighing twenty-four pounds. These balls were enclosed in a bag, which was secured to his person in such a way that it could not slip. The twenty-four pounder at first could be borne only from two to five minutes. The bag of shot, the twelve-pound and the twenty-four-pound balls were used alternately for another four weeks. The result was encouraging. The pulsation was less forcible, the tumor had lessened and its parietes had become hard and comparatively inelastic, and the artery below the aneurism was evidently diminishing in calibre. The patient was now able to bear the weight of the twenty-four pound ball constantly during the day, except when relieved by the application of ice. His diet was carefully regulated; meat was interdicted, and only light, farinaceous food allowed. About this time I discovered a small pulsating tumor on the top of the right foot, at the base of the metatarsal bone of the great toe—probably a dilatation of the *arteria dorsalis pedis*. This was cured in a short time by pressure with a piece of India-rubber and a bandage. In order to check circulation in the limb as much as possible, I applied a bandage from the toes to the groin. This afterwards gave place to a firm, silk, elastic stocking, two inches less in circumference than the leg, extending likewise from the toes to the groin. I also had made a strong leather belt to pass round the hips, with a groin strap. By this means I was able to produce powerful pressure upon the bag of shot, which was worn during the night.

This treatment was continued, with little variation, from October, 1863, to June, 1864. The artery below the aneurism was now extremely small and its pulsation scarcely perceptible. The swelling had much diminished in size, had become hard, and its action comparatively feeble. I now decided to continue the treatment which had thus far been attended with so favorable a result, but to apply my pressure in another form, and, if possible, in such a manner as to admit of locomotion. A wide, strong, firm leather belt was made, thoroughly padded, which was fastened tightly around the hips; to this was attached a strap passing from behind the trochanter to buckles over Poupart's ligament. A pad was adapted to the tumor—hard, oblong and convex, with a block-tin back. This pad was held

in position by the strap passing through loops to the buckles. By these means I found I could apply a very considerable amount of force. These straps having been adjusted, I allowed the patient to sit up and walk a short distance each day. At first his legs were very weak; he rapidly gained strength, however, and was soon able to walk out, and in September, 1865, he began to attend to business, walking once a day from the neighborhood of the Boylston Market to Tremont Row. The pad was so accurately adapted to its intended position, and so firmly held there, that motion of the joint did not displace it, and thus a strong pressure upon the tumor was insured, even during active exercise. He continues to wear the belt and pad night and day, never removing it, except when in the horizontal position, and then only for a few moments for the purpose of bathing the part or to dress the excoriations produced by the belt upon the hips. On my last examination, about three weeks since, the artery below the swelling could not be felt, having, so far as could be ascertained, become obliterated by the constant pressure. The tumor pulsed feebly, had become harder, and had little elasticity.

The patient was upon his back ten months, and has been under surveillance between sixteen and seventeen months; during the first part of this time the pain and weariness wore upon him somewhat. His health, however, continued good, and his digestion was rarely disarranged. After five months he had become accustomed to the treatment, and began to grow fat; and when he left his chamber he found he had gained twenty pounds during his confinement. I had, it is fair to state, an extraordinary patient to deal with. Mr. S. bore pain, continuing night and day for so many months, with a fortitude and even cheerfulness which could not be surpassed.

The result of the treatment by pressure in this case is certainly satisfactory. The attendant circumstances were such as, from the first, to indicate an almost hopeless prognosis. The nature of the disease, its situation just beneath Poupart's ligament, must render any operation which might have been attempted exceedingly dangerous, if not probably fatal. The ligation of the external iliac is an operation certainly not to be undertaken but as a last resort. When, in addition, we consider the aneurismal tendency of the arteries, as indicated by the swelling of this nature on the dorsum of the foot, the aspect of the case was sufficiently discouraging, and a favorable result from an operation could not have been anticipated. To check the flow of blood through the aneurism by pressure applied above was impossible, as the tumor was directly upon the border of the pelvis. The application of immediate pressure in any other way than that employed, as by tourniquet, must necessarily have been attended by disadvantages, and was—after being duly considered—rejected. The course pursued was one which required constant vigilance to guard against excoriation and ulceration of the skin over the swelling, and this, by great care, was prevented. The belt

around the hips, which was necessarily tightly strapped in order to obtain a firm purchase for the compressing strap, has from time to time caused sores which have been difficult to heal. There has been no complaint of numbness of the limb, nor any tendency to paralysis. The diseased leg, at the calf, is one and three fourths inches larger than the other.

TWO CASES OF POLYPUS.

By T. H. CURRIE, M.D., Enfield, N. H.

[Communicated for the Boston Medical and Surgical Journal.]

I HAVE recently been called to treat two cases of polypus that were of great interest to me, as they presented some features that I had never met with before.

CASE I.—Mrs. S., aged 38. Has had four children, the youngest of which is 8 years old. Four years ago she had difficulty in passing water. At one time she was obliged to call in a physician, who tried to introduce a catheter, but not succeeding in relieving the bladder of its contents, he decided that there was no urine in it. A few hours after she voided water, and it did not pass with the usual sensations. She remarked that it passed into the vagina, and felt as it did when she used warm-water injections. She also suffered severe pain when the catheter was used. There has been soreness in this region ever since. From about that time she has suffered very much from what she supposed to be menorrhagia, which at times entirely prostrated her and confined her to bed. I saw her two years since, and made a vaginal examination, and discovered a tumor attached to the anterior wall of the vagina, about two inches from the meatus, where she said there had been soreness since the catheter was introduced. I proposed a removal of the tumor, which was about the size of a man's fist, but she declined.

Dec. 25th, 1865.—I was called to see the patient again, and found her very low, looking as though she had lost the last drop of blood. There was a stench in the room such as I had never met with before under any circumstances. She gave me the history of her case for two years past, and it was terrible from beginning to end, she having suffered severe pain all the time, except when under the influence of opiates. The tumor had steadily increased in size. For a year past it had protruded beyond the labia, and so impacted the vagina that she was obliged to press it back from the urethra with her finger in order to evacuate the bladder. I found a portion of the tumor between her limbs as large as a pint bowl, black, and insensible to the touch. The vagina was so filled that I could not reach the attachment or pedicle to remove the whole mass at once, therefore I cut away about two pounds with the scissors and knife. Whenever there was bleeding I used ferri persulphas. She seemed so exhaust-

ed that I deferred the completion of the operation until the next day. I then cut and removed enough of the tumor to permit me to reach the pedicle, and applied a ligature close to the walls of the vagina and cut it off with the scissors without losing an ounce of blood. In four days the ligature came away with what remained of the pedicle, without any bad consequences whatever.

I prescribed quinine and iron, with wine, and she began to improve immediately. In about four weeks she was able to sit up a part of the time, and since then has gained rapidly. Now, Feb. 21st, she is able to do most of her work, walks about the streets with ease, and has no difficulty in evacuating the bladder. Four weeks after the operation I examined the vagina with the speculum, and found the cicatrix looking perfectly healthy. The tumor was fibroid.

CASE II.—Jan. 25th. Mrs. C., aged 45. Has had two children, the youngest now being 16 years old. Has menstruated regularly up to November last. Never had any difficulty in menstruation. The last of December the catamenia appeared, but did not stop as usual. She kept about house until the above date, when I was called to see her. She was confined to the bed from the loss of blood. After trying the usual remedies for such cases without any benefit, I made an examination per vaginam and found the uterus considerably enlarged, leading me to suspect pregnancy or polypus. Prescribed one drachm of wine of ergot every half hour until she should have severe and regular pains, when it was to be stopped. The flooding continued, however, notwithstanding the pains, requiring the use of injections of persulphate of iron to check it. About six hours after, the pains commenced again. The os became dilated, and a tumor protruded about an inch. I called the venerable Dr. Clough, of Lebanon, in consultation, and he recommended to inject the womb with a strong solution of alum and wait for further developments. In six hours I visited the patient again, and found the os contracted firmly around the tumor, with continued flooding. The patient was so reduced that there was constant faintness, with extreme restlessness. Thinking there was no time to be lost, I introduced my hand, which is not very large, into the vagina, well oiled, and commenced dilating the os with the ends of my fingers and thumb. It yielded readily, and as soon as it was sufficiently dilated to allow me to pass up my index finger and thumb between the tumor and the walls of the uterus I did so, and found the tumor attached to the fundus of the organ by a pedicle the size of my finger. With the thumb and finger nails I commenced amputating it close to the uterus. The operation did not cause the least pain nor increased flooding. I continued the operation until the tumor was disengaged, and removed it with my thumb and finger. It was four inches long and three and a half in diameter. The bleeding ceased immediately, and did not return.

Feb. 21st.—She is now able to sit up most of the time, and has not had the first symptom of metritis. The tumor was fibroid.

For a year past the patient has been afflicted with dyspnoea much of the time, with severe palpitation of the heart, but since the operation she has had no attack of either.

Query.—Had the catheter anything to do with the tumor in the first case?

February 21st, 1866.

ALUMINUM IN DENTISTRY.

By AUGUSTUS MASON, M.D., Brighton, Mass.

[Communicated for the Boston Medical and Surgical Journal.]

THE medical profession, in its medico-legal and hygienic departments, has very intimate relations with dentistry. As custodians of the public health, physicians should be thoroughly acquainted with the metals and alloys used for dental plates, and with the safe or pernicious character of all substances used in the mouth. Dentistry, in some form, has become so indispensable and universal a requisite of our social condition, that in addition to the obvious local effects of cheap or poisonous dentistry, the physician may as wisely interrogate the mouth for an explanation of obscure constitutional affections as he has heretofore suspiciously criticized the wall-paper, the water, or the culinary implements.

I have strong reasons for believing mercurial pastes are still clandestinely used for plugging teeth, though they have long since ceased to be used openly, professional and public opinion having secured their merited condemnation.*

The use of red vulcanite as a base for artificial teeth is open and universal, and if there is any virtue in homœopathic triturations, or the cumulative effects of minute doses, the experiment of constitutional poisoning by cinnabar is being tested by this generation on a most stupendous scale.

I am aware that most physicians, even the best informed generally, were until lately (if they are not now) ignorant of the composition of the red vulcanite, though the medical journals have repeatedly called attention to the subject;† and that to arouse the profession and the public to any source of danger requires persistent effort or the panic of some startling development.

Certain qualities have introduced the vulcanite to popular favor (in ignorance of its composition), and the introduction of some desirable and equally efficient substitute will hasten its disuse.

Dr. Keep's brief paper on the use of aluminum as a base for ar-

* The day after this was written, a gentleman came to my office to consult me about an aching tooth. I found it recently plugged with an amalgam of mercury and silver. In such cases the tooth must generally be lost, owing to the difficulty of removing the filling.

† Vide London Lancet, American reprint, vol. ii., No. 1, 1861, p. 64; Boston Medical and Surgical Journal, vol. lxi., p. 164, et al.

tificial teeth, read before the Massachusetts Dental Society and printed in the last number (Feb. 15th) of your valuable JOURNAL, will probably, by the value of his reputation, recal the attention of dentists, to some extent, to new experiments with that metal.

It is to be regretted that Dr. Keep has not detailed more fully the history of the application of aluminum in Europe and this country, with the reasons, if any, leading to its utter neglect.

I shall endeavor to supply a portion of the void left by Dr. Keep, together with a concise statement of my connection with bringing the article anew into the field of notice and experiment.

In the summer of 1864, Dr. Fowler, of Yarmouthport, had proposed to make a set of permanent teeth for a member of my family, upon a rubber base. Gold was at a high premium. Learning that the red rubber was colored with a large quantity of cinnabar, or bisulphuret of mercury, he came out to my house in great excitement, with the idea that if an innocuous color could be found to replace the cinnabar, or a cheap and desirable substance for gold or red rubber, it would be worth a fortune to the discoverers.

An agreement was therefore made, at his urgent request, that I should immediately investigate the subject; that he should conduct the laboratory work and experiments, and the results, if any, should be equally shared.

It is sufficient to say, that having investigated the properties of the whole list of metals, I soon became aware that there was no known sulphuret, with the proper color, that could be used as a substitute for cinnabar, and in this opinion I was fortified by subsequently learning that the whole field had been thoroughly worked by competent chemists, with unsatisfactory results, and for the very same end, i. e., to avoid the poisonous or supposed poisonous properties of the cinnabar.

In studying the series of metals and their compounds, I found but one that had the requisite properties for use in the mouth as a substitute for the metals already employed, and this, from its chemical description, and from what I knew of its actual employment for domestic purposes, appeared every way suitable. This was aluminum.

Having, therefore, explained to Dr. Fowler the uselessness of further experiments and researches for a substitute for cinnabar, I proposed that our experiments should be tried with this metal.

We visited the Public Library of Boston, thinking that we might find there all that was known in regard to aluminum. The Librarian most courteously assisted us, but I am sorry to say that the information obtained was very limited, and led us to suppose our field entirely unexplored.

Some ingot aluminum was purchased and rolled into plate, but the aluminum would not solder.

A set of teeth was, however, made without difficulty, as the process of using vulcanite in connection with metallic plates was well

known to dentists at that time. The great resistance of aluminum to the action of sulphur and its compounds rendered it singularly adapted to combination with rubber in the vulcanizing process.

The set was inserted in the mouth for trial, and found to be remarkably clean and tasteless. The red vulcanite was used in this set, as we had no plastic material for black vulcanite.

Our attention was still directed to working up a set wholly of aluminum, and while we were discussing the possibility of soldering and filling the crevices by throwing down the aluminum from solution by galvanism, my attention was attracted to an advertisement of a patent for making a base for a set of teeth entirely by that process.* This I hunted up, and notified Dr. Fowler, and together we inspected the models, which were in the hands of J. M. Batchelder, a gentleman of inventive ability, but not the patentee of this process. This gentleman had, however, been trying some successful experiments in the use of vulcanite for telegraph insulation, and fortunately had some unvulcanized rubber in his possession. This was obtained in small quantity, tried with aluminum, and found to work handsomely.

The product was objectionable only on account of color, but was free from deleterious qualities. The main purpose of our experiments seemed to be secured. I therefore forwarded a fresh supply of aluminum to Dr. Fowler, and as soon as possible a sufficient quantity of prepared unvulcanized rubber, which I obtained after great effort and trouble, for the construction of specimens to be forwarded to the Patent Office. This patent was to be in our joint names, and the expense divided.

It would be foreign to the purpose of this paper to detail the course pursued by Dr. Fowler to obtain the patent in his own name. It suffices to say, I discovered his perfidy at the last moment. I at once procured some more aluminum, assisted with my own hands in rolling it, and employed a dentist to make up a set of teeth.

Relieved of the incubus of the secret, I could obtain information beyond the range of scientific works, to which I had been confined. I could consult persons, and soon became aware of new facts in regard to aluminum, which I will proceed to detail.

I consulted Mr. Farmer, with whose name I was familiar in connection with alloys of aluminum, and who was considered an expert on the subject. Mr. Farmer informed me that aluminum plates had been used several years previously by Dr. Fiske, of Salem. Such I found to be the fact, and also that Dr. Fiske was well informed in regard to the previous use of aluminum in dentistry. In a letter to me from Dr. Fiske, dated the 20th of January, 1865, he writes that he made a set of teeth upon an aluminum base for Col. P., of Salem, on the 28th of February, 1859. Col. P. brought his aluminum from Europe where, in 1858, its employment in dentistry was attracting

* John Johnson, Saco, Maine, patentee.

considerable attention.* The aluminum bar was rolled by Dr. Fiske, and the teeth fastened on by aluminum rivets through the body of the tooth. The set was made without difficulty. It is still in possession of Col. P., and occasionally worn.

Dr. Fiske, whose mechanical and inventive genius is very remarkable, took my aluminum plate and returned me a complete set of teeth, made with perfect ease at the first trial, the aluminum plate containing an air chamber, which is wanting in the earlier sets of Dr. Fowler. The set made for me by Dr. Fiske I have in my possession. The teeth are attached by rubber.

Any dentist who has access to an old file of the *Quarterly Journal of Dental Science*, London, January No., 1859, will find a lengthy and interesting paper from the pen of Mr. Harrington, containing most of the facts now known upon the use of aluminum. The paper was read before the College of Dentists Oct. 5, 1858. Mr. Harrington had experimented one year. The following is a summary of his conclusions:—

That cast aluminum plates stood well, were without taste or unpleasantness of any kind, and were in no ways affected by the saliva, or secretions of the mouth—in fact, everything one could desire.

That in contact with any other metal, or if wrought aluminum (rivets, for example,) were used with cast aluminum, strong galvanic action set in, with a saline taste, and gradual decomposition.

That wrought aluminum would decompose when used alone, and that the use of the hammer, roller or file would produce a decomposable surface.

His idea of using cast plates arose in the first place from the known difficulty in soldering, and the fact that by his process plates could be cast with facility.

In this country, cast plates were made by Dr. D. Van Denburgh, of Oswego, N. Y., in 1858, without the knowledge of their employment abroad. He, however, subsequently learned that there was a patent taken out in England in 1855. His experiments were perfectly satisfactory. In fit, strength, lightness and mechanical beauty his plates left nothing to be desired. Their recommendations were, extreme lightness, resistance to acids and sulphuretted compounds, and the limited extent to which aluminum could be alloyed. It was eight times lighter than gold, and yet in the same bulk of greater strength. Complete upper sets, with the teeth, might be made not weighing more than half an ounce, and the heaviest need not weigh over fifteen pennyweights.

For more full particulars of Dr. Denburgh's conclusions, see the *Dental News Letter*, published by Jones, White & McCurdy, April and July Nos., 1859.

In another periodical I found a complete summary of the processes

* Aluminum wire was successfully used for sutures in surgery in England in 1858. See Braithwaite, Part xxxviii.

for manipulating aluminum. I thus discovered that we had been ploughing an old fallow, but perhaps with an improved plough. I came to the conclusion that my proper remedy against Dr. Fowler was by a suit in equity, though probably his patents would not be valuable.

1st. Because a re-issue to Dr. Cummings made his patent to include sets where rubber was used in part.

2d. Because of various patents, especially those of the Messrs. Assay, of Philadelphia, in 1860, and Steinberg, of California, in 1861, covering the use of all metallic plates with rubber.

3d. Because of the previous use of aluminum.

I made an attempt, by writing to Dr. Van Denburgh, to ascertain his experience of the wear of aluminum, since the date of his communication to the *Dental News Letter*, but obtained no reply.

The trial set of rubber and aluminum used in my family has been in constant wear about eighteen months. There is a possible loss of substance by attrition, but unfortunately, not having been weighed, the loss is mainly conjectural.* It has recently cracked, and the fissure has extended through the rubber rim, and I fear the set is permanently ruined. The plate was undoubtedly too light. It has, however, been free from taste and remarkably clean—in these respects much superior to the gold plate previously worn.

I have no doubt that the use of aluminum as a base for teeth has fallen into undeserved neglect, and that it is eminently adapted for the purpose;

That cast sets are cheap, of facile manufacture (under pressure), and combine all the advantages pointed out by Dr. Keep in the use of rubber and aluminum;

That possibly perfect sets may be thrown down from the solution in aqua regia by the galvanic process, with equal or greater advantage;

That rolled plates with black rubber are innocuous, free from galvanic action, light and cheap, unless too many patents are paid for;

That the combination of aluminum bronze with rubber entails the risk of galvanic action and slow decomposition;

That the use of red rubber with aluminum does not obviate the objection to the use of entire rubber sets, namely, the presence of cinnabar in the mouth.

Aluminum has considerably fallen in price of late years, and, when improved processes of manipulation have freed it more from silica, will probably be more ductile and easier worked.

In modern chemical nomenclature the metal is called aluminum, and not aluminium, as Dr. Keep has it.† I called it aluminium to Dr. Fowler, as I found it so named in my old chemistry, but I find it

* Muriatic acid and vinegar have some solvent action on aluminum.

† [Both terminations—in um and ium—are used by modern chemists.—Eds.]

so called in the dental magazines. Dr. Fowler's name should be N. C. and not C. A., and I do not envy him all the honor he may obtain; when the field for a reputable credit was before him, if he had not been led astray by the illusory hope of a dishonorable profit.

Physicians and dentists, it seems to me, should encourage repeated experiments with so innocuous and desirable a substitute for red vulcanite. It often happens that the most valuable discoveries are shelved at the first trial, from the difficulty of pushing them against the obstinate prejudices and conceits of mankind, which, when re-introduced at a favorable moment, are found not only to meet a pressing need, but to lead to higher planes of progress.

February 16, 1866.

CONTAGIOUSNESS OF CHOLERA.

To the Editors of the Boston Medical and Surgical Journal.

I NOTICED in your JOURNAL of Feb. 8th, some strictures by "*A Practical Physician*" (so self-styled) on a letter of mine to Dr. Sayre, Health Commissioner of New York, in which, rather by ridicule and sneers than argument, he attempts to contradict or disparage the views therein expressed. If cholera were not too serious a subject for ridicule, I might, perhaps, reply to your humorous correspondent in a similar vein; but I think a more serious style more befitting so important a subject.

As to the matters alluded to, by way of query, I leave the relevancy of the questions to the judgment of your readers. I congratulate your city, however, on the recent change of views of Dr. Read, your excellent City Physician, and trust you will have a quarantine sufficiently stringent to leave no possibility for cholera to enter your port and city. I hold, with, I believe, a majority of our profession in this and foreign countries, *that cholera is portable in some way, and communicable*, and that it is not only the right, but the duty of all communities and governments to establish strict quarantines, and if such as they should be they will compensate for all their inconvenience and expense. The quarantine regulations and restrictions heretofore established in our ports against the introduction of cholera have been worse than useless, vacillating, inefficient, differing in different ports, and never properly enforced; and then, because they proved ineffectual, the wise conclusions were adopted that quarantines are of no use, that the whole atmosphere is pregnant with cholera-poison, the disease is not contagious, or carried by those affected with it; and if any physician holds to the latter doctrine, the case is not one for argument or facts, but only for ridicule! I certainly would agree with some of your Boston faculty and say, let all quarantines be abolished and done away with, if rational ones cannot be instituted and their observance despotically and unremittingly enforced. In the case of

cholera, *cholerine*, once called "*a premonitory diarrhœa*," but which is a mild form of cholera, can communicate the disease as well as severe, acute and spasmodic cases; just as *varioid* will communicate the severest forms of smallpox to the unprotected, and quarantines must exclude all such cases.

I am happy to notice, also, that the General Government is moving in this matter, and that Senator Ramsey has introduced the following joint resolution, which it is hoped and expected will be passed unanimously.

Resolved, That it shall be the duty of the Secretary of War, with the coöperation of the Secretary of the Navy, whose concurrent action shall be directed by the Commander-in-Chief of the Army, to cause a rigid quarantine against the introduction into this country of the Asiatic cholera through its ports of entry, whenever the same may be threatened by the prevalence of said disease in countries which have direct commercial intercourse with the United States.

Second. That he shall also enforce the establishment of sanitary cordons to prevent the spread of said disease from infected districts adjacent to or within the limits of the United States.

Third. That said Secretaries are hereby authorized to use the means at their command to carry out the foregoing provisions.

Fourth. That it shall be the duty of the Secretary of State to open a correspondence with the foregoing powers whose proximity to the United States shall endanger the introduction of Asiatic cholera into this country through their ports and territories, soliciting their co-operation with this Government in such efforts to prevent the introduction and spread of said disease.

The measures about being carried out in New York, will be seen from the following statement in one of our daily papers:—

"*Quarantine—a New Site Selected*.—The Quarantine Commissioners have selected as a site for the erection of a quarantine hospital, store-houses, &c., the 'West Bank,' which is about two miles directly south of Fort Tompkins, and about an equal distance west of Coney Island.

"They purpose to erect three wooden buildings on the 'Bank,' each to be 320 feet long and 220 wide. One is to be used as a hospital for cholera patients, of whom it will accommodate 300. It is to be one story in height.

"A second building is to be known as the 'hotel.' It is to be two stories in height, and capable of affording accommodations for one thousand persons, with apartments for the physicians, officers, &c. All persons arriving on vessels infected by the cholera, but who have not taken the disease, are to be sent to this building. Convalescents will also be accommodated there.

"The third building, to be known as the warehouse, is to be used for the storage of goods that come in cholera-infected ships, and

upon which duties are to be paid. It will be six hundred feet south of the hotel, and of the same dimensions. It is to be one story in height.

"The estimated cost of the hospital is \$421,000; of the 'hotel,' \$435,586; of the warehouse, \$427,163.

"The foundation of the building will be constructed of logs and stones, the piers being nine feet above high-water mark. Vessels of heavy draft can conveniently land cargo and passengers at the wharves.

"The work cannot be commenced until an appropriation therefor is made by the Legislature."

I shall not, at present, argue the great question of the *portability or transmissibility of cholera by means only of human intercourse*. The proposition is one, as it seems to me, as capable of demonstration as any in the whole range of etiological science; and the opposite one, of a *general atmospheric impregnation, or contamination with cholera-poison*, is so irrational and unphilosophical, so absurd, so opposed to the historic progress of cholera, in all countries and under all circumstances, that it is difficult to conceive how any mind, governed by the ordinary rules of evidence, can possibly adopt it.

Peekskill, N. Y., March 7th, 1866.

CHARLES A. LEE, M.D.

Reports of Medical Societies.

EXTRACTS FROM THE RECORDS OF THE BERKSHIRE DISTRICT MEDICAL SOCIETY.

BY WM. WARREN GREENE, M.D., SECRETARY.

Internal Hemorrhage from a Fall; Death; Autopsy.—Dr. Root, of Pittsfield, reported the case of a boy, 5 years old, previously healthy, with the exception of occasional attacks of colic, which were readily controlled by simple means. About 4, P.M., while at play in the yard, he fell, striking the abdomen upon a stick of wood. He came into the house, complaining of pain and faintness, but soon fell into a quiet sleep, which lasted two or three hours. In the evening, symptoms of peritonitis appeared and rapidly increased in intensity, which were not controlled by treatment; collapse supervened, and early next morning a convulsion terminated the case.

The mother remarked, that for a year previous she had noticed an unusual fulness of the abdomen, but it was general—no more upon one side than the other.

The parents consenting, an autopsy was made by Drs. Greene and Smith, Dr. Root being ill.

On opening the abdomen, over two quarts of fluid blood were found in the peritoneal cavity. After removing this, a cyst was found, formed by the separation of the mesenteric duplicature of the peritoneum, capable of holding a quart. It was partly filled with blood, which was supplied to it by a branch of the mesenteric artery, commencing with the cyst close by the intestines. The sac varied very much in thickness at different points. Several bands of organized lymph ex-

isted, as did also sacculations from the general cavity. The portion nearest the abdominal wall was extremely thin, and in it was a small opening, allowing the contents of the cyst to escape into the peritoneal cavity, and thus explaining the cause of death. Indications of recent peritonitis were present.

Dr. Root remarked that when he first saw the case, perforation of the intestine was suspected, but from the slight character of the blow and the previous good health of the child, as reported by the mother, it did not seem possible.

The specimen was shown the Society, and is preserved in the College Museum.

Tubercular Peritonitis; Death.—Dr. ALLEN reported the case of a married lady, aged 35, who had never borne children. A year ago last December she ceased menstruating, up to which date she had been regular. About this time she suffered from morning sickness and various anomalous symptoms, which led to the suspicion of pregnancy. As these continued for several weeks and were associated with marked debility and emaciation, Dr. A. was consulted. At this time there was no abdominal pain or tenderness; the alvine discharges were natural, as was the urinary secretion. There was a well-defined hypogastric tumor, resembling very much a distended bladder. Elsewhere the abdomen was no fuller than usual. Percussion over the tumor elicited tympanitic resonance. The bladder was sounded and found healthy, and the uterus free from disease and of normal length.

In spite of all medication she gradually sank; the irritability of the stomach continued, the emaciation increased, strength diminished, and without ever having had, from first to last, any pain or tenderness of the abdomen, she died about five months from the cessation of the menses.

An autopsy, made by Drs. Allen and Greene, revealed the existence of extensive tubercular peritonitis. Everywhere, with one exception, the peritoneal surfaces were firmly glued together by organized lymph, and studded by tubercular masses from the size of a millet seed to that of a bean. A few of the mesenteric glands were tubercular, and similar masses were found on the mucous surface of the ileum. The hypogastric tumor was produced by a distended portion of the ileum, this being the only point where that organ was not firmly bound down by adhesions.

Scarlatina.—Dr. SMITH, of Pittsfield, reported the following case of scarlatina. A child three years old was taken on Saturday night with profuse diarrhoea and vomiting, which was followed in a few hours by the characteristic rash. After the first two or three alvine discharges, each one was accompanied by a convulsion. These were repeated several times during Sunday, the last one occurring at 10, P.M., when coma supervened, and the patient died early Monday morning. Dr. S. asked the opinion of the Fellows present as to the propriety of venesection in the so-called "congestive" forms of scarlatina.

Dr. PRATT queried whether there was in these cases congestion proper, but thought nervous prostration the essential element of the disease, this resulting, of course, from the action of the *materies morbi*, whatever it is. He related an interesting case in which a little boy, about 8 years old, was attacked in the evening with sore throat and general febrile action, followed in the morning by the rash. During the day delirium

occurred, followed by partial coma; rash of a mahogany color. Treated with chlorate of potash and quinia (the latter in three-grain doses every four hours) and supporting diet. In a week convalescence was established, which, however, was interrupted by the occurrence of well-marked periodical chills. These were controlled by twenty-grain doses of quinine in the intervals. A diarrhœa which occurred at this time was controlled by the bi-tannate of quinia. He supposed that this would have been called one of the "congestive" cases. He remarked also, in this connection, that he believed the *blood conditions* to be the same in this disease as in diphtheria.

Dr. BREWSTER, who saw the case reported by Dr. Pratt, hardly thought it would come under the class of "congestive" cases, as the term was used. He had repeatedly seen cases which were apparently much benefited by local depletion.

Dr. Greene believed that in scarlatina, as in all other zymotic diseases, we occasionally have visceral congestions or congestive inflammations, which are sufficiently severe to abolish the functions of important organs, and thus destroy life mechanically, before the circulation can be equalized by any medicines introduced into the system. There is not time for absorption or elimination. In fact, the congestion itself may have abolished these functions. Nature often teaches us a great lesson by spontaneously unloading the blood-vessels of a particular part, even in low forms of disease, to the great benefit of the patient; and so we, at the same time we are supporting the general strength, and even striving to increase the amount of blood in the system by all the proper means, may employ local depletion to unload an engorged organ and allow it to resume its functions. These cases are, of course, *exceptional*, and the great difficulty is to discriminate between the two classes. In this connection, Dr. G. related a case which occurred in the practice of Dr. Lucas, of Chester. A young man, vigorous and of sanguine temperament, was attacked with scarlatina. Soon after the appearance of the rash it became dark in color, pulse small and rapid, eyes suffused, active delirium, followed in a few hours by coma. Dr. L. bled him from the arm "until he woke up." The amount taken was not measured, but was "very large." Pulse became full, soft and slower; rash of proper color, &c. A slight recurrence of head symptoms the following day was relieved by a slight venesection, and he made an excellent recovery.

THE BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON: THURSDAY, MARCH 15, 1866.

BOARDS OF HEALTH.

If anything had been hitherto wanting to convince the public of the entire inefficiency and absurdity of our present system of boards of health, it was amply furnished in the sanitary history of last summer. A large tract of the city was allowed to be shut off from drains and sewers, and to become a sunken and stagnant cesspool; the filth of

entire wards was turned into a shallow basin to decompose and poison the air of half the inhabitants; a similar nuisance of several years existence was suffered to continue within a few rods of the so-called "lungs of Boston," in spite of repeated remonstrance and startling warnings; propositions for the establishment of public baths were rejected; and all the densely populated quarters were in a miserable state of uncleanness. Yet every one of these evils might have been remedied; neither the means nor the power was wanting to the authorities whose duty it is to prevent and to correct such abuse of the laws of public health. Such neglect, however, will always be the rule as long as these important duties are entrusted to "aldermen and selectmen," as the present statute provides.

What can such unprofessional persons know of the laws of hygiene or of the means to ensure their administration? There are, it is true, consulting physicians, competent advisers, but experience shows that the advice of consulting physicians is seldom asked and rarely followed. What is wanted is a board of health so constituted that it shall possess both knowledge and authority, which shall oblige a heedless and dilatory city government to perform its duties and prevent the possibility of the recurrence of such a state of affairs as existed in this city last summer. Such a change is especially demanded before the cholera reaches us, and before the summer heats begin their work. The New York State authorities have just passed a stringent act creating "a Metropolitan Board of Health," to consist of four members, three of whom must be physicians, and the health officer of the port of New York. The board has been already appointed, and we are pleased to hear that their first official act was to elect Dr. Edward B. Dalton, son of our late esteemed citizen, Dr. John C. Dalton, to the important position of Sanitary Superintendent. Dr. Dalton's well-known executive ability, proved on many an emergency during the war, will peculiarly fit him for the arduous duties of his office.

We are happy to state that there is a bill already before our State Legislature asking for reform in this direction, and framed in accordance with the views of some of our most experienced sanitary experts. The Boston Social Science Association made this subject the order of discussion at its recent monthly meeting, and from the able paper presented on that occasion by Dr. H. G. Clark we make the following extracts:—

"Suppose it were announced to us, on some Monday morning, that during the preceding week there had been from ten to twenty deaths in Boston, from secret poisoning, and that the cases were well known to the police; and that this state of things should go on, from week to week, without arrest or discovery of the causes or criminals, through the year? Nothing could exceed the agitation and indignation of the community.

"But there are from ten to twenty deaths a week in Boston, and at that rate throughout the year—and by poison, too—the poison of badly ventilated, badly drained, and over-crowded dwellings, and by the unfit food and pernicious drinks of which their inhabitants have partaken.

"I think, then, I am within the strict bounds of truth, when I assert my belief that, since the night of the eighth of March, 1865, and to-night, there have been more than five hundred, perhaps a thousand,

unnecessary and preventible deaths in this town; and, of this number, the slaughter of the innocents 'of two years old, and under'—which first shocked the ears of all the world, as inaugurated by Herod—almost still finds its annual parallel in the records of our city register.

"The fact that this destruction does not follow the visible stroke of the tyrant's sword, or the commendation to our lips of the cup of poison by the hand of an ever-ready Borgia, makes no difference in the result. It is only a question of time and place. * * * * *

"A consideration of some of the powers, duties, and functions proposed to be conferred upon, and to be exercised by, Boards of Health, will make it very plain that these boards should be composed of 'competent, discreet, and suitable persons,' and, when so composed, it is for the interest of the public that they should be invested with the highest authority.

"These boards may be general or local—centralized State boards, or local boards for cities, towns, or districts; and their duties will vary accordingly.

"The duties of general boards of health may be briefly stated to be as follows, viz. :—

"1. To consider and decide upon such sanitary questions as may be submitted to them by the State, or municipal authorities, or local boards of health.

"2. To diffuse, by reports or otherwise, information to the inhabitants of the State on sanitary matters; and to aid, by suggestions, orders, or regulations, the various local boards.

"3. To examine into the salubrity of the great institutions of the State; the safety of public buildings and factories; the security of life on railroads, &c. &c.

"4. To collect and collate statistics relating to life and health; as to the modes of employment, and of living; and the comparative healthiness of different localities of the inhabitants.

"5. To appoint suitable officers to carry out the plans of the board."

"With these important and multifarious duties, it is evident that boards of health require to be constituted in a manner which shall combine talents and capacities of a very varied character; thus there should be—

"1. Some medical men and sanitary experts.

"2. A Registrar to collect the facts on which the board may act.

"3. An engineer or surveyor, to give the plans, elevations, grades, &c., necessary in the construction of the various works.

"4. A lawyer or solicitor, whose functions are so obvious that it is not necessary to specify them; but his presence will always be required to protect and save the rights of all parties.

"The officers to be appointed by the Board would be—

"1. An executive or medical health officer, who must be, of course, a physician.

"2. Superintendents of cleaning, drains, &c.

"All of whom are to be under the direction, and acting under the responsibility of the board.

Boards of health, under the laws of the Commonwealth, cannot be properly constituted; the present statute making the *selectmen* in towns, and the *aldermen* in cities, *ex-officio*, Boards of Health. In

the nature of things, with but here and there an exception, of which we in Boston have had one or two, and, fortunately, one very thorough, sanitarian, in our principal cholera epidemic, in the person of the chairman of the Internal Health Committee, Mr. Henry B. Rogers, I think it will be admitted, a board so composed cannot be a proper board.

"They are not experts. They know only at second hand anything of sanitary laws. It is most important that the members of Boards of Health should themselves be familiar with the necessity for, and the grounds of action, in regard to matters in which they are called upon to legislate.

"Upon a board properly constituted, the whole community would rely with the utmost confidence. Such a board would, by its wise counsel, its steady-handed and reasonable measures, and that calmness and courage, which an intelligent confidence, and a knowledge of their ability to comprehend, and to face the threatened emergency, always confer on their possessors, stand, like the priests of old, between the pestilence and the people.

"The whole subject is now before a committee of the legislature, and a bill, the principal provisions of which I read, has been prepared, which, if passed in its present form, will go far to remedy the evils of which we complain. If a general (State) Board of Health could be established, it would be better still.

"**SECT. 1.** The corporate authorities of the various cities and towns of this Commonwealth are hereby authorized and empowered to establish Local Boards of Health, and to enact and enforce, generally and severally, such laws, ordinances, and regulations, as they may deem expedient or necessary for promoting the sanitary condition of the said cities and towns, and as are not inconsistent with the Constitution and laws of the State.

"**SECT. 2.** The said Local Boards shall, in all cases, be so constituted, that, at least, one third of their members shall be Doctors of Medicine, and that there shall be upon each Board, also, at least one lawyer, one engineer, and one registrar.

"**SECT. 3.** The said Local Boards of Health are also authorized when they may deem it expedient, to delegate to duly authorized agents, not exceeding two in number, and who shall be directly responsible to them, such powers as are necessary to the convenient exercise of the said laws and regulations.

"**SECT. 4.** All expenses which shall be incurred by order of the Board of Health, in the abatement of any nuisance, may be recovered of the owner or tenants of the real estate on which such nuisance existed, and shall also constitute a lien upon such real estate for two years after said expenses shall be incurred; and said lien may be enforced in the same manner as liens for taxes on real estate are enforced.

"**SECT. 5.** Full compensation shall be made to all persons who shall sustain any damage by reason of the exercise of the powers of this act.

"Upon its action, and upon the revision of these boards, so as to place the administration of these important and vital interests in competent hands, everything depends.

"New York has done a noble deed in the recent passage of a thorough-going Health Act—one which strikes at the root of the corrup-

tion and incapacity under which her splendid metropolis has so long suffered : and we are likely, unless some radical action is soon had here, to be left as far behind her, in sanitary laws, as we have been hitherto in advance of her.

"Upon the Legislature rests the responsibility of saying whether the Board of Health of this and other places shall be so constituted as that no more lives shall be unnecessarily sacrificed to the dangers of the present imperfect systems, or whether we shall be able to congratulate ourselves on an advancement in the science of humanity, upon the plans so long since adopted by the boards of health of Great Britain.

"Finally, and practically, the question is, if, in Boston, there shall be for the future, *five hundred lives annually lost for the want of, or saved by reason of, APPROPRIATE LEGISLATION.*"

"Dr. John Jeffries next followed, agreeing with the views of his predecessor that in the constitution of an efficient Board of Health scientific and thorough physicians should have a controlling voice. Physicians, in order to be equal to such a position, should be profound chemists and thoroughly versed in physiology. Such men would always exercise a controlling interest in the community whenever an epidemic or contagious disease threatened.

"Hon. Judge Russell fully agreed with the theory that scientific physicians should constitute a leading portion of a competent Health Board. He charged upon the public here a lack of interest in the subject of disease which lay at their very doors. Advertise that the cholera was raging at Calcutta, and that sanitary measures were neglected there ; that the sewerage of Jeddo was defective ; that cleanliness was utterly neglected in Burrompoota, and that a public meeting would be held in the Music Hall on these matters, and there would not be a vacant seat ; but to a subject which was of vital concern to them, the community was listless and backward. He advocated warmly the features of the bill for a Board of Health as read by Dr. Clark. He said that a few months ago thirty-five men were robbed on the streets of Boston, and the public called upon the courts for prompt justice ; whether or not it was done it was not for him to say. Five hundred were poisoned in this city last year for the lack of sanitary measures, but the people seem indifferent. The need of an efficient board of health is greater as the cholera is feared. The government of Boston mean not to have that epidemic, at all events not a panic, and in illustration that science could avert it, he quoted Gen. Butler's success in keeping the yellow fever from New Orleans."

Remarks favoring these views were also made by Drs. Read and Jarvis.

Messrs. Editors,—You or some of your readers may have noticed that one of the graduates at the commencement last week received his degree of Bachelor of Arts from Harvard University in July, 1864. To guard against the inference of laxity on the part of the Medical Faculty in knowingly allowing any breach of the rule of three full years of study by candidates for a medical degree, I mention that we have a certificate of three full years of study and a written explanation appended to it from Dr. Chandler Braman's preceptor. Dr. Braman commenced the study of medicine at the age of 16, at a time

when he did not propose passing through the undergraduate department of the University, and devoted two years to it at that time, twenty months to it since receiving the degree of Bachelor of Arts, and his leisure hours of the intervening period. This explanation is offered in justice to the graduate as well as to the Faculty, to whom the confidence of the profession in their integrity and carefulness is very important.

Very truly yours,

GEO. C. SHATTUCK,

March 12, 1866.

Dean of the Med. Faculty of Harv. University.

Foreign Intelligence.—The School of Medicine founded by Maximilian Hapsburg in Mexico has been attended by 200 students, but as seven years are required to complete their studies, it is doubtful if any of them graduate under his imperial patronage.

Prof. Romberg, of Berlin, lately received the congratulation of his colleagues through a deputation composed of Prof. Gräfe, Griesinger, Langenbeck, Traube and Virchow, on the celebration of his 70th birthday.

At the suggestion of Prof. Rokitsky a committee, consisting of Profs. Wedl, Röhl and Klob, has been appointed by the Imperial Society of Physicians in Vienna to study and report upon Trichiniasis. Of the 350 persons affected during the late epidemic at Hedersleben, more than 90 have died. The village contained but 1800 inhabitants.

VITAL STATISTICS OF BOSTON.

FOR THE WEEK ENDING SATURDAY, MARCH 10th, 1866.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	50	40	90
Ave. mortality of corresponding weeks for ten years, 1856—1865	41.8	38.2	80.0
Average corrected to increased population	00.	00	87.15
Death of persons above 90	-	0	0

We are requested by Dr. Fowler to ask our readers to suspend their judgment with regard to the charges against him by Dr. Mason in this week's JOURNAL, in his article on the Use of Aluminum in Dentistry, until he has an opportunity of presenting his own statement of the facts in the case.

ERRATUM.—In our last number, page 127, 16th line from bottom, for Green, John Orne, A.B., Lowell, read Green, John, A.B., Boston.

PAMPHLETS RECEIVED.—The Restorative Treatment of Pneumonia. By J. Hughes Bennett, M.D., F.R.S.E. Third Edinburgh Edition. (From the Author.)—Memorial of the late Thomas W. Blatchford, M.D., read at a meeting of the Governors of the Marshall Infirmary, Troy, N. Y., by James Thorn, M.D.—Sermon on occasion of the Death of Thos. W. Blatchford, M.D., by D. Kendrick, D.D., Troy, N. Y.—Report of the Pennsylvania Hospital for the Insane, for the year 1865.

DIED.—At Randolph, Vt., March 2d, Dr. J. R. Pember, aged about 65 years.—At Chicago, Ill., 28th ult., from the effects of an overdose of morphine, Dr. Isaiah P. Lynn.

DEATHS IN BOSTON for the week ending Saturday noon, March 10th, 90. Males, 50—Females, 40. Accident, 3—inflammation of the bladder, 1—congestion of the brain, 1—disease of the brain, 7—bronchitis, 3—cancer, 1—consumption, 15—convulsions, 3—croup, 2—diarrhea, 2—dropsy, 1—dropsy of the brain, 3—erysipelas, 1—scarlet fever, 1—hemorrhage, 1—disease of the heart, 1—infantile disease, 1—insanity, 1—intemperance, 1—congestion of the lungs, 1—inflammation of the lungs, 12—marasmus, 3—old age, 3—paralysis, 1—peritonitis, 1—puerperal disease, 2—purpura, 1—rheumatism, 1—smallpox, 4—teething, 1—unknown, 7—whooping cough, 1.

Under 5 years of age, 34—between 5 and 20 years, 5—between 20 and 40 years, 22—between 40 and 60 years, 14—above 60 years, 15. Born in the United States, 65—Ireland, 18—other places, 7.